

days. The bleeding was chiefly from the pimples on the face, but sometimes the nose bled also. In small quantities, too, blood was occasionally present in the feces and in the matters rejected by vomiting. It was also constantly present in the urine. The blood was said to clot always more or less firmly. A specimen that the author saw and examined carefully looked, in every respect, like ordinary blood, and had separated in the usual manner into clot and serum. There was much general illness accompanying the hemorrhages, and more than could be accounted for by the anæmia which was caused by the loss of blood. No disease of any special organ could be discovered. Nothing very definite could be assigned as a cause of the patient's illness, and until it began it had never been noticed that slight wounds caused any large or long-continued hemorrhage, although he thought he was always, as he expressed it, "inclined to bleed." None of his family were particularly subject to losses of blood, with the rather doubtful exception of his mother. No treatment seemed to do any good so long as he remained in London, and he was, therefore, removed into the country about two months after the recurrence of the hemorrhages. Within three days after his removal he began to improve, and gradually recovered almost his former health and strength. About two months after his removal he again returned to his house in town, and again, as if from the change, became ill, although no return of hemorrhage took place. Soon afterwards he left London permanently, and eight months afterwards was reported as quite well. After the description of the case, the author proceeded to point out, in the first place, the differences between the idiopathic (of which this was an example) and what might be called the traumatic variety of this diathesis, and quoted cases of somewhat the same kind from Grandidier, Wachsmuth, etc. He then noticed the symptoms peculiar to the present case, and their differences from those of purpura, which in some respects the disease resembled. He concluded by noticing the great good that seemed to be derived from change of air after all other treatment had been tried in vain.—*Med. Times and Gaz.*, July 8, 1865.

27. *Non-Transmission of Syphilis by Vaccination.*—A paper by Dr. BOECK, of Christiania, was read before the British Medical Association at its late meeting at Lexington, in which the author stated that he had most carefully examined the question whether syphilis could be transmitted by vaccination, and had been unable to find any evidence in favour of such transmission either in published records or from experiments performed by himself. He related instances in which he had vaccinated syphilitic children, and had endeavoured, but without producing any result, to inoculate with the matter obtained from them two patients suffering from elephantiasis. He considered that no doubt should be thrown on vaccination unless on the most convincing evidence; and, while he did not deny that syphilis might be transmitted by vaccine matter, he must withhold his belief that such an event could occur until he saw it. The facilities for observation were great in Norway; but the transmission of syphilis by vaccination had never there been observed.—*Med. Times and Gaz.*, August 19, 1865.

SURGICAL PATHOLOGY AND THERAPEUTICS, AND OPERATIVE SURGERY.

28. *Are there any Antecedent Conditions Influencing the Production of Cancer?*—At the discussion of this question during the recent meeting of the British Medical Association, Dr. CHARLES MOORE, of the Middlesex Hospital, said that in this inquiry there must be agreement as to the conditions and the period of the disease which were to be the subject of discussion; and he expressed his own conviction that cancer commenced at the appearance of the first tumour. At the terminal examination of a case of cancer there might be tumours throughout the body; but one of them had preceded all the rest, and one, in many instances constituted the solitary and the fatal malady. To what

renounced his error, and at the same time there appeared an Italian, Sperino, of Turin, who showed, by a series of experiments, that the syphilitic disease was cured during these inoculations, which Auzias, too, at the same time, demonstrated. Still, this failed to reconcile physicians to the new method; such a prejudice had been raised against it that both the Académie de Médecine of Paris and the Academy of Turin condemned it without having the necessary materials before them for passing any judgment; the paradox involved in this method appeared to all so enormous as to render proofs of its absurdity unnecessary.

Lecturing in the University of Christiania upon syphilis, and having a section of the hospital devoted to this disease, I carefully investigated all that was advanced upon this subject, and ascertained that there must be some truth in it. I had, through a period of very many years, found that our treatment with mercury is highly unsatisfactory: I therefore considered that, from my position, it was my duty to give a trial to this new method, although it appeared to me as paradoxical as it did to all the world, and notwithstanding that it had been condemned by two academies. But before I began, I laid down for myself certain limits, to which I still adhere. It will be at once observed that I will not speak of the method as a prophylactic: this would be immoral; but neither am I at liberty to employ it in every case of syphilis; it is only when syphilis has become constitutional—when the syphilitic virus flows with every drop of blood through the system—that I allow myself also to inoculate it upon the skin.

The next question is, whether I shall employ syphilization in every case of constitutional syphilis?

By a fortunate coincidence it happened that of the two individuals whom I first took under treatment by syphilization, the one had not been treated for syphilis, while the other had been the subject of all the resources of our art. In the first the inoculations proceeded without difficulty, the symptoms gradually disappeared—in a word, I found myself upon the beaten path. In the other case all was irregular, I could effect no order at all, and when my first patient was well, the phenomena in the second were still in full bloom. I immediately began to suspect that it was to the medicines previously given that this result was attributable, and on subsequently investigating this opinion, its truth has been most completely confirmed; so that I have made it a general rule to syphilize only those who have not previously been treated with mercury, whether this has been employed for primary or constitutional symptoms. But if I be asked whether syphilization has not some effect in these cases, I can answer decidedly in the affirmative—it often acts incredibly. Dr. Simpson, of Edinburgh, has recently described two such cases, which were sent over to me by Professor Simpson; what is there stated corresponds precisely to what I have myself noted, and of which any one may satisfy himself. But the reason why I do not undertake the treatment of such individuals is to avoid having relapses, which in these cases are apt to occur.

Now, in order to make my usual mode of proceeding as plain as possible, I shall suppose that a person labouring under primary syphilis consults me. In this case I treat the primary sore as a simple ulcer—I prescribe a weak solution of sulphate of zinc or such like, and occasionally employ a slight cauterization with nitrate of silver; I give no internal medicine, but make the patient come to me once or twice a week, that I may observe when the constitutional symptoms break out, for the earlier syphilization can be commenced the better. So soon as I perceive the first constitutional signs, I commence the treatment by taking matter from an indurated chancre or from an artificial pustule in a patient under treatment by syphilization. I inoculate first on both sides of the chest, and make three punctures with a lancet, precisely in the mode adopted in vaccinating. After three days pustules are developed, and then I inoculate again in the sides, taking the matter from the pustules produced by the first inoculation, observing carefully to make the second inoculation at a distance from the first, so that the sores may not become confluent. At the end of three days I make the third inoculation, taking the matter from the pustules of the second inoculation; and I now continue to inoculate on both sides every third day, always taking the matter for the fresh inoculation from the pustules last formed, so long as this

and intestinal tubes, presented similar appearances of disease. The villi in some cases were in a state of fatty degeneration, in others the basement membrane was greatly thickened and the number of nuclei increased. The most general form of disease was a deposit of pigment in the villi. Although the author was of opinion that the facts were not sufficient to enable him to determine whether these diseased conditions were the cause of the cancer, or only a result of some other pathological condition producing both, he thought the subject worthy of the attention both of pathologists and practitioners of medicine.

30. *Pathology of Tetanus*.—Mr. J. LOCKHART CLARKE, in a communication to the Royal Medical and Chirurgical Society (June 27, 1865), described the condition of the spinal cord in six cases of tetanus. In every one of these there was not only more or less congestion of the bloodvessels, but there were also definite, and frequently extensive, lesions of structure, such as have never yet been discovered. These lesions consisted of disintegrations of tissue in different stages of progress, from a state of mere softening to that of perfect fluidity, and were accompanied by certain exudations and extensive effusions of blood. They were found chiefly in the gray substance, which, moreover, was in many places strangely altered in shape—unsymmetrical on the opposite sides, or partially fused with the adjacent white column in a common softened mass. Although lesions of this kind existed, in one form or other, in every region of the cord, they were absent in some places; nor did they ever, for long together, maintain the same shape, size, or appearance, but were constantly and alternately increasing, diminishing, or disappearing, at short but variable intervals.

These lesions in tetanus are precisely similar in character to those which the author has discovered in the spinal cords of many ordinary cases of paralysis; and on comparing together the lesions and symptoms of both kinds of diseases, he finds good ground for the support of the following conclusions:—

1st. That the lesions are either not present, or are present only in a slight degree, in those cases of tetanus which recover.

2d. That they are not the effects of the great functional activity of the cord (manifested in the violent spasms), but are the effects of a morbid state of the bloodvessels.

3d. That they are not alone the causes of the tetanic spasms.

4th. That the tetanic spasms depend on two separate causes—firstly, on a morbidly excitable condition of the gray substance of the cord, induced by the hyperemic and morbid state of its bloodvessels, propagated from the injured nerves and resulting in exudations and disintegrations of tissue; and, secondly, on irritation propagated and spread through the morbidly excitable cord from the same source—from the periphery, by the diseased nerves.

Mr. C. stated that the observations described in the paper were made on the spinal cords of six cases of tetanus; and that since the communication of the paper he had examined the cords of three more cases with precisely similar results. The lesions and alterations of structure, though numerous, were in some places exceedingly small, and appreciable only under glasses of considerable magnifying power.—*Lancet*, Aug. 12, 1865.

31. *Experimental and Clinical Inquiry on the Solvent Treatment of Urinary Calculi*.—Dr. W. ROBERTS, Physician to the Manchester Royal Infirmary, communicated to the Royal Medical and Chirurgical Society (March 28) a paper on this subject.

This paper is divided into two parts. The first part is devoted to experiments and observations relating to the solvent treatment of uric-acid calculi by alkalinizing the urine by internal medicines. The inquiry starts from two known data—namely: first, that uric acid is dissolved by solutions of the alkaline carbonates of a certain strength; and secondly, that alkaline carbonates can be introduced into the urine, so as to render it alkaline, by the administration of certain salts by the mouth. The practicability of dissolving renal and vesical calculi, composed of uric acid, by alkalinizing the urine, is inquired into under ten headings or sections as follows:—

Section I. Comparison of solutions of carbonate of potash and carbonate of

myself, or any of mine, were so unfortunate as to get syphilis, I should employ no other means than syphilization.

Still, a few words in conclusion, gentlemen. Vaccination has for many years stood alone; syphilization now comes to join it. Shall we stop here? I believe not. Vaccine and the syphilitic matter are both animal viruses; we see them contained under a similar law. May not also the other animal poisons be referred to a similar law? We see that nature is simple in her diversity: should this not also here be the case? Should not glanders, hydrophobia, etc., some time be curable? Let us all seek to clear up this dark point in our science, and let us not, as hitherto, with respect to syphilization, seek only to extinguish the rising gleam.—*Med. Times and Gaz.*, June 10, 1865.

33. *Syphilization*.—Mr. HENRY LEE introduced to the notice of the Royal Medical and Chirurgical Society (June 13, 1865) a patient who had been sent from this country, and who was supposed to have been cured in Norway by syphilization, under the care of Professor Boeck. Mr. Lee stated that the patient was shown, in order that the Fellows might have an opportunity of judging for themselves of the nature of the case, and of the effects of the treatment pursued. He (Mr. Lee) wished to be excused from giving any opinion upon either of these points upon the present occasion. Professor Boeck had honoured him by becoming his guest during his present short stay in this country, and he merely wished, as Dr. Boeck was unavoidably absent, to present the patient to the society in Dr. Boeck's name. He (Mr. Lee) might, however, briefly state the principles upon which Professor Boeck professed to act, and some of the physiological results at which he had arrived. Professor Boeck believes that there are two kinds of infecting sores, one of which appears as a soft chancre, and subsequently becomes indurated. This sore has no period of incubation, and is auto-inoculable. The other infecting sore has a period of incubation from two to four weeks, is not generally auto-inoculable, and secretes only thin pus or a serous fluid. It was with this last-named secretion that Professor Boeck, as Mr. Lee understood, carried on his process. But inasmuch as naturally the chancre last named produced no inoculable pus, before the process can be commenced an inoculable secretion must be established. This is effected by constantly applying some sabine powder to the surface of the sore until an inoculable secretion is produced. This mode of artificially producing an inoculable secretion was based upon an original experiment of his (Mr. Lee's) own, in which he used sabine ointment for the same purpose. Having obtained an inoculable secretion from an indurated and naturally non-inoculable sore, Professor Boeck proceeds to make three punctures on the sides of his patient. At the expiration of three days, these points in their turn yield a puriform auto-inoculable secretion. This fresh secretion is then, in like manner, inoculated, and three fresh pustules are produced. In this way the inoculations are continued every third day, the inoculated matter being always taken from the last-formed pustules. It is found that the inoculations continually produce less and less effect, until at last no result follows. In this way a series of some twenty or twenty-five inoculations may be performed with the secretion of a naturally non-auto-inoculable indurated sore. Now, supposing that a series of twenty such inoculations had been performed, the inoculations first made would be sixty days old, and the tenth inoculations in the series would be thirty days old. If, at this time when, in the direct descent, no further effect can be produced with the inoculations last made, some of the secretion be taken from the tenth set of inoculations (thirty days old) that will be found to be inoculable again; and curiously enough, the series of inoculations from that set may be continued for the same, or very nearly the same number of times as those previously made from the same source; that is to say, if the total number of the first series of inoculations were twenty, then, if the secretion were taken from the tenth set (then thirty days old) ten more inoculations, and no more, may be produced from this source, so that the number of inoculations in the direct descent and those by collateral branches is in all cases nearly the same. When the life of this germ has been exhausted, some fresh matter is taken from another source, and the process recommenced. Fresh parts of the body—as the thighs—are then taken, and the process repeated until

are especially suitable for the solvent treatment are those in which (the urine being preliminarily acid) it is known or strongly suspected that the stone is composed of uric acid, and has not yet reached any large size.

Section 9. Directions for carrying out the solvent treatment effectually.—The urine must be kept *continuously* alkaline, and alkaline to a mean degree, corresponding with the *maximum solvent powers of solutions of carbonate of potash*. The treatment must be given up immediately if the urine become ammoniacal.

Section 10. An examination of some of the objections which have been urged against the principles of the solvent treatment.

The appendix to the first part contains some experiments showing that cystine is even more amenable to the alkaline solvent treatment than uric acid.

The second part of the paper contains three sections.

Section 1 contains experiments on the solvent treatment of uric acid calculi by injections into the bladder. Solutions of the following substances were tried in a manner to imitate injections into the living bladder: bicarbonate and carbonate of potash, common phosphate of soda, basic phosphate of soda, borax, borax with liquor sodæ, potash, soap, carbonate of lithin, liquor potassæ, and liquor sodæ. The results obtained demonstrated conclusively that their operation was so slow that no practical advantage could be obtained from their use.

Section 2 records some experiments on the effects of a solution of carbonate of potash and dilute nitric acid on oxalate-of-lime calculi: neither solvent promised any useful result.

Section 3 shows the unsusceptibility of phosphatic calculi to solutions of the alkaline carbonates. Brodie's method of injecting dilute nitric acid into the bladder was imitated in one experiment, with results confirmatory of his statement respecting the use of this treatment in phosphatic concretions.—*Lancet*, April 8, 1865.

32. *Syphilization*.—Prof. W. BOECK, of Christiania, delivered at the theatre of the Meath Hospital, before the principal physicians and surgeons of Dublin, the following lecture on this subject:—

By syphilization I understand the mode of treatment by which, by repeated inoculations of syphilitic matter, taken from primary sores, I bring the body into the condition that it is no longer susceptible of the action of the syphilitic virus.

It will, perhaps, be agreeable to you, gentlemen, before I proceed further, that I should lay before you a short *résumé* of the history of this mode of treatment. Auzias-Turenne, of Paris, performed inoculations of syphilitic matter upon animals in order to see whether this virus could be transferred to them, which up to that time had been denied. In this he was at length successful, and it was chiefly apes which could with the greatest facility be inoculated. After chancre had been repeatedly produced in the same ape, a great many sceptical physicians wished to see his inoculation, and a meeting was appointed in the *Jardin des Plantes*; the old ape was inoculated, and a still greater crowd assembled a few days later to see the result. But when the ape was brought in nothing was to be seen. It may easily be imagined how the result was received, and that Auzias-Turenne was ridiculed, but he did not on that account give up the method; he continued his inoculations, found that the old ape was not susceptible of fresh inoculations, but that a second ape after inoculations got chancres, though this ape also after a series of inoculations became unsusceptible.

Auzias-Turenne now saw clearly that he had here a natural law, in itself resembling that which your immortal Jenner had discovered in the inoculation of vaccine matter, and we shall not upbraid him that his French blood now carried him away, and that his first idea was to employ the inoculation of syphilitic matter like that of vaccine matter—as a prophylactic. We cannot gainsay him that his train of ideas is logically correct, but it is not practically correct, for the great rule is, that he only gets syphilis who himself will have it.

As the result of this idea of employing syphilization as a prophylactic, my friend Auzias wished at the time to syphilize all public girls, seamen, and soldiers, and he would willingly have syphilized us all. No wonder, then, that such an idea met with all the opposition it deserved; but it was not long until Auzias

had shown what terrible mutilations were caused by mercury amongst the British; whilst the Portuguese, treated without it, had no phagedæna. M. Ricord had for some twenty years been chief of an eclectic school, which, discarding the drug in soft sores, advised "six months of treatment with a daily dose of mercury (which influences the accidents we have to combat), followed by three months of iodide of potassium. Of this treatment Mr. Syne had written that it "injures the health not less effectually than the process of poisoning it professes to have so advantageously replaced." Dr. Hughes Bennett said, "The idea that mercury is a specific for syphilis, and the incalculable mischief it has occasioned, will constitute a curious episode in the history of Medicine at some future period." Mr. Weeden Cooke and Mr. Spencer Wells said that syphilitic bone-disease did not occur without the use of mercury. The Author had recently received from Dr. Boeck, of Christiania, two works, the one entitled "*Recherches sur la Syphilis*," by Dr. Boeck; the other "*Aperçu des différentes Méthodes de Traitement employées contre la Syphilis Constitutionnelle à l'Hôpital de l'Université de Christiania*," by Dr. Bidentkap. Dr. Boeck, in his "*Recherches*," had shown that primary sores took, on an average, far longer to heal under mercury than without it (sixty-two to thirty-eight days); and also that the number of secondary appearances was far greater when it was used (twenty-four to fourteen). Dr. Bidentkap mentioned that for the last ten years there had been experiments in Christiania as to the treatment of constitutional syphilis, resulting in entirely expelling the drug. Besides syphilization—employed by Dr. Boeck, and which, Dr. Drysdale observed, had, in his opinion, for sole merit its freedom from the use of mercury—Dr. Bidentkap gave a detailed account of 192 cases treated by means of two expectant methods: (1) sweating; (2) derivation, *i. e.*, the raising of pustules by tartar-emetic ointment over the body. In these 192 cases thus expectantly treated, no worse symptoms were observed than eruptions, alopecia, sore-throat; with only five cases of iritis, which got well without mercury, and two cases of periostitis; and no bone disease. Dr. Bidentkap wrote, "The very rare cases of tertiary syphilis are met with among patients who have undergone a mercurial course elsewhere, especially abroad. Formerly, on the contrary, obstinate tertiary cases formed the majority of those treated at the hospital. It appears, then, that the exclusion of mercury from therapeutics has been the cause of it." Prof. Bärensprung, of Berlin, in his work on "*Hereditary Syphilis*" (Berlin, 1864), after enumerating mucous tubercles, sore-throat, and exanthem-like eruptions, had written: "The above rapidly described alterations are those of which, in the majority of cases, the picture of syphilis is entirely composed. These may remain for weeks or months, or vanish for a shorter or longer period, or finally disappear for life. At least, I can certify that in the now countless cases where I have treated syphilis without mercury, and which I have seen completely recover, there have never appeared any other forms than those papular and exanthematous ones, with, in a few cases, iritis, periostitis, and orchitis; but in no single instance has destructive perforation or necrosis appeared, provided that no extraordinary circumstances prevailed which have the property, like mercury, of altering the character of syphilis. . . . A rapid and well-marked mercurial cachexia is not the sole, but the most frequent cause of phagedæna. . . . Tertiary syphilis is not mercurial cachexia: it is syphilis in a constitution modified by mercury." Dr. Drysdale observed that his own experience completely corroborated the remarks of Bidentkap and Bärensprung. He gave the details of several cases recently treated by him without mercury, with immunity from any but trifling lesions. In conclusion, Dr. Drysdale said he believed that syphilis in adults was not always, but almost always, a very mild disease, when treated without mercury; that rupia was extremely rare when no mercury was used; that bone-disease did not occur unless in mercurially treated cases; and that, in short, the internal administration of mercury in syphilis, or in inflammatory diseases, had neither any rational theory to appeal to, nor was it supported by the experience invoked in its defence. He trusted that the verdict of the Profession would soon be against the internal use of mercury in syphilis.—*Med. Times & Gaz.*, July 29, 1865.

matter continues to afford a positive result. When it no longer takes, I procure new matter in the same mode as for the first inoculation, and continue with this as with the first. This second matter will yield smaller sores and a shorter series than the first, and when it no longer takes I procure a third and proceed in the same manner. This third matter will produce very little effect, and I therefore pass to the upper arm, where I proceed in precisely the same mode as in the sides; and when no effect is any longer visible in the upper arm I remove to the thighs, and continue there in the same way as in the two preceding places. By the time the inoculations are here brought to an end, from three to three and a half or four months have probably elapsed, the symptoms which manifested themselves from the commencement have disappeared, or if some slight symptom has remained this disappears spontaneously. It often happens that during the treatment a fresh outbreak takes place, and he who is not acquainted with the method believes that some other plan must now be adopted; another infers that syphilization is of no avail. But, let them not be deterred by any symptom, not even by the most severe iritis, which never requires anything but the instillation of a little atropia. But, happen what may, let them shut their eyes to it and continue the inoculations. The patient who, during the whole treatment, can attend to his business, feels, after it is completed, perfectly well, and may immediately expose himself to any hardships. He can endure wet, cold—in a word, everything which after mercurial treatment would render him liable to life-long illness. It is probable that I may now be asked as to the result at a later period for these individuals, and I shall speak first of the relapses. On the whole, I have treated 429 individuals, and of these 45 have come back, making about 10½ per cent.; but, as we may calculate that some of those treated during the last year will return, I will assume that the relapses will amount to 12 or 13 per cent. But, let us now examine more closely what is called a relapse after syphilization. In many instances a single mucous tubercle, a small white spot on the tongue or in the throat—symptoms for which nothing more than external means is employed, and for which the patients are treated only for a few days in hospital. So far as I at this moment remember, thirteen were taken again under treatment with syphilization, and two with iodide of potassium.

You will next ask whether tertiary symptoms have been developed in any of them. This has been the case, I believe, with three; but at the same time these individuals have been perfectly well—their general health has not, as so often happens after mercurial treatment, been broken down, and in those who have had relapses it has been good, as it is evident that in those who have had no relapse it has been particularly good.

We come now to the children of those who have been syphilized. Here we are not much better off than after the mercurial treatment; we see the same rule to prevail as after this last method, namely—that when the mother has been syphilitic, the first child or children is or are syphilitic; that they are healthy is the exception. If the father has been syphilitic, the children are, in general, healthy; that they are syphilitic is the exception.

You will next propose to me the question how I treat syphilitic children. I treat them precisely as I do adults; and it is interesting to see that the sores in these little ones bear in size a proportion to that of the child, and that the patients suffer less, and not more, than adults. The results of syphilization in children with hereditary syphilis have not been brilliant; of forty-two children, twenty-two died, but I have taken under treatment every case that I have met with, and every one knows that in such children there are very often affections of the internal organs which lie beyond our power to cure. I cannot at this moment say how many little children with acquired syphilis I have syphilized, but they are not few, and of these only one died, the cause of death in that instance being croup after I had performed tracheotomy. Of adults, two died—an old woman of dysentery, and a young woman of puerperal fever. This latter case I forgot to include in the *résumé* I have given in the *British Medical Journal*.

Now, in order to give you a definite idea of the confidence I have in this method after having practised it daily for thirteen years, I shall say only that if I

mon integument. In this method the soft parts are twice transfixed, and the artery is compressed between the bone and the middle portion of the needle without the integument, between the first point of exit and the second point of entrance. Three portions of the needle are left without the integument, namely, its central portion and its extremities.

Prof. Pirrie gives a brief account of thirteen cases in which he employed acupressure. These cases he tabulates also as follows, to show the conditions for which acupressure was used, the method employed, and the age of the patient:—

No.	Operation.	Age.	Method.
1	Amputation of thigh . . .	6	Third method.
2	Do.	13	Fifth, or twist, half rotation.
3	Do.	51	“ quarter rotation.
4	Do.	66	Fourth method.
5	Do.	14	Third method.
6	Do.	15	Fourth method.
7	Excision of mamma . . .	42	First and third method.
8	Do.	35	Third method.
9	Excision of elbow-joint . .	22	Third method.
10	“ testicle	21	First method.
11	Amputation of leg . . .	28	Fifth method, quarter rotation.
12	Wound	22	Seventh method.
13	Excision of mamma . . .	47	First and third method.

In forming an appreciation of this proceeding Prof. Pirrie says: “The first great point to be determined is, whether or not acupressure is a perfectly reliable method of checking surgical hemorrhage. That it is so, my belief is as strong as it could well be on any surgical point; and I have a decided impression that any surgeon who gives it a fair trial will assuredly arrive at the same conclusion.

“Besides being as reliable as any hemostatic yet employed, it appears to me to have the advantages of being the quickest, the easiest of application, and the safest means yet devised for arresting bleeding. That the vessels in a large amputation can be acupressed in a much shorter time than they can be ligatured I am perfectly satisfied, and in cases where every drop of blood is precious, it seems to me that to do all that can be done to preserve life, as far as saving of blood has influence, it is the duty of the surgeon in all suitable operations to give his patient the benefit of this new proceeding. But shortening the period occupied in arresting hemorrhage is not only important for diminishing one of the early dangers of an operation—namely, that from loss of blood, but also for lessening the risk of the more remote dangers from suppuration, and many distressing results of the higher grades of the inflammatory process in the stump. I have long thought we are too apt to forget that living tissues are resentful of even slight injuries, and that we are not sufficiently careful to use the sponge as seldom, and as gently as possible. Whatever shortens the period of hemorrhage must diminish the risk from frequent touching of the parts.

“That acupressure can be applied with the greatest facility and ease, any surgeon may satisfy himself by giving it a trial. For arriving at a just appreciation of acupressure, one of the most important points to be determined is, the effect of its use on the frequency of pyæmia, which is admitted by all to hold a high place among the causes of death after great operations. It is only by the careful observation and record of a long series of cases that this question can be definitely determined. It will, however, be generally admitted that whatever promotes primary union diminishes, and that which induces suppuration increases, the tendency to pyæmia. Primary union never does or can take place throughout the whole of a wound where the arteries have been ligatured: but where they have been acupressed that desirable result is often obtained, and the risk of the occurrence of pyæmia entirely obviated. Whatever be the alterations that take place in the blood in pyæmia, and whether the morbid matters

no further inoculations with this kind of matter can be produced upon any part of the patient's body. Immunity from inoculation from this kind of matter, from whatever source derived, has then been arrived at, and the patient is said to be "syphilized." It is found in performing these inoculations, that when a particular series has come to an end—at the expiration, we will say, of the twentieth set of inoculations—in a patient A., and the same has occurred at the same time in another patient B., that the sores which are still suppurating on A., may, nevertheless be inoculated on B., and B.'s sores, which would no longer produce any effect on himself, may nevertheless be inoculated on A. The two series of inoculations, which have come to a natural termination on the patients themselves, may thus be crossed so as to be continued. The seed, which will no longer grow in the soil in which it has so often sown, will, nevertheless, take root in other ground, and, after it has continued there for a certain time, may be re-transferred to its original bed. Thus, in the case supposed, A.'s first series of inoculations will continue for sixty days, and B.'s series will continue for the like period. If then, some matter from one of A.'s suppurating sores (say, from fifteenth set) be inoculated upon B., they will take, and this collateral series may then be continued; and if, in like manner, the secretions from B.'s fifteenth set be inoculated upon A., the inoculations will take, and the series may be continued. After an interval, the secretions from these collateral series may again be re-transferred to A. and B. respectively. When a patient has been in this way syphilized so that no further inoculations can be produced from matter derived originally from an indurated chancre, Professor Boeck considers that he is proof against any fresh infection, and that he is cured of that which he previously had.

After these observations, the patient was, with the permission of the President, introduced to the Society, and the Fellows had an opportunity of investigating his case for themselves. On examining the patient, a small cicatrix appeared on the frænum; this was depressed. On chest and thighs were a large number of cicatrices, some of them of considerable size, depressed, and showing that there had been evident loss of substance. Very extensive destruction had taken place at the back of the throat, extending forwards through the entire length of the soft palate. The nose was depressed upon the right side, showing that there had been loss of substance either in the bone or cartilage in this situation. The upper lobe of the right lung was found to be, in part, consolidated. On the left leg was a circular cicatrix, in the course of the internal saphena vein, the remains of an issue which had been made to cure a chronic ulcer. The history which he gave was, that the ulcer on the frænum, the cicatrix of which was left, appeared in 1855; it remained open six weeks; it was very painful, and bled; it left no hardness. There was some swelling in the groin at the time, and this was treated by the external application of the nitrate of silver. The sore on the frænum appeared some six weeks or two months after he supposed he had exposed himself to contagion. About twelve months after this sore he had severe ulceration of the throat; this got better and worse several times. There was at this period some loss of hair. He never had had any eruption on the body, and had never tasted mercury. He was thirty-three years of age with a large pupil; all the family were weak in the chest. Had had ten brothers and sisters, all of whom had died of consumption. The patient, who wore a false palate, expressed himself in the strongest terms as being most grateful to Professor Boeck for having cured him of his disease.—*Med. Times and Gaz.*, June 24, 1865.

34. *Remarks on some Recent Evidence against the Internal Administration of Mercury in Syphilis, with Cases treated by the Author.*—This is the title of a paper read before the Royal Medical and Chirurgical Society (June 27, 1865), by Dr. DRYSDALE. The author observed that as a Commission was endeavouring to arrive at some conclusion on this vexed question, he thought the present a fit time to invite discussion on the subject. He believed, in common with Mr. Syme and M. Ricord, that this disease had always existed; and that before the time of Paracelsus it was mild, probably on account of the absence of mercury from the materia medica of the ancients. Dr. Ferguson, in his letter from Evora, in 1812,

and complained of the annoyance caused by the pulsation. Examination of the right side of the neck revealed a diffuse swelling occupying the whole of the L. T., and the U. T. as high as the hyoid bone. On applying the hand, strong pulsation with aneurismal thrill was manifest. The stethoscope revealed an impulse like that of an enlarged and hypertrophied heart; and the cordal sounds were louder than over the region of the heart itself. The swellings could be made to disappear by pressure. There was no hesitation in arriving at the diagnosis that this was sacculated aneurism of the whole of the common carotid, also that it was incapable of cure by operation. Before the discovery of the coagulating properties of iodide of potassium, or little more than two years ago, I could only have let my patient die. Having some thirty-three or thirty-four years ago seen at La Charité, in Paris, the beneficial effects of starvation and rest in retarding the progress of a case of aortic aneurism, I determined to conjoin these with iodide of potassium internally. I enjoined absolute rest in bed, allowed eight ounces of *white* bread and one pint of water per diem, and ordered five grains of iodide of potassium in an ounce of water three times a day. Now, for the progress of the case, which I saw at intervals of three days; and I would draw especial attention to the rapidity of the improvement, and the total disappearance of the aneurism. In three days, on the 12th, the swellings had perceptibly subsided, and the dyspnoea was much relieved; the history of that in the U. T. may be disposed of in a few words: it subsided gradually and uniformly for fifteen days, at the end of which time no aneurism could be distinguished. The rest of my remarks apply to that in the L. T.; on the 18th, from being a diffuse, shapeless swelling, it had contracted to the size of a large hen's egg, dipping under the sterno-mastoid muscle, much firmer, impulse and sounds diminished. 24th. Reduced to the size of a walnut. April 1st. Size of a pigeon's egg. 6th. Size of a large hazel-nut. 21st. All trace of aneurism gone. It is worthy of notice, that the aneurism regularly diminished from above downwards, and without inwards, so that when it was reduced to the size of a hazel-nut, the finger had to be pushed under the cloidal insertion of the sterno-mastoid and close to the clavicle in order to feel it. I have no doubt that there were two sacculi, one filling the U. T., the other and the larger the L. T.

On the 1st April, the diet was increased to 12 oz. bread, half pint milk, and a pint of water. 6th April, allowed to get up. 21st. Released from all restraint as to diet or exercise. He was directed to continue the iodide of potassium for two months longer as a precaution. I next saw him on the 15th May, when he had recruited his strength very much, and left for home. I heard of him up to 25th August; he wrote that there was no sign of the disease returning. I am firmly of the opinion, that had not scant diet and absolute rest been conjoined with the iodide of potassium, no such successful result, as now detailed, would have been obtained. It would be a great satisfaction to me to hear of the same plan being pursued in cases of aneurism in other parts, *e. g.*, popliteal aneurism, when the application of a starch bandage would insure perfect rest to the limb, not omitting, however, the recumbent posture. Of course, there was considerable loss of weight, but the emaciation was confined almost entirely to the muscles. Before taking to bed the patient's muscles were hard and salient; but at the end of three weeks, when the diet was first increased, the limbs were round and soft like a woman's, but not much diminished in size, and the skin had the waxy watery appearance of oligemia. The explanation seems to be this: the temperature of the room, according to French Canadian custom, being always 78° or 80°, there was little call on the lungs to keep up the animal temperature; absolute rest being enforced, a minimum of aerated blood was required by the muscles, so that the lungs required a very small quantity of fuel, which was almost all supplied by the starch of the bread, thus very little fat was required. We know that under starvation, or a deficient supply of food, the azotized and phosphorized materials of the blood disappear very rapidly, and the waste can be made up only from the muscles.

The selection of white bread instead of brown, was made expressly because it is so much less nutritious to the blood, containing only a fractional portion of phosphorus, which is found almost entirely in the bran.

35. *Acupressure*.—Dr. WILLIAM PIRRIE, Professor of Surgery in the University of Aberdeen, has published (*Med. Times and Gazette*, July 1 and 8, 1865) a very interesting paper on this subject, in which he briefly describes the principal methods of acupressure, seven in number, and gives his experience of this hemostatic agent.

The *first method* consists in passing a needle through the flaps or sides of the wound, so as to cross over and compress the mouth of the bleeding artery or its tube, just in the same way as in fastening a flower in the lapelle of our coat, we cross over and compress the stalk of it with the pin which fixes it, and with this view push the pin twice through the lapelle. The only portion of the needle which is left exposed internally on the fresh surface of the wound is the middle portion of it, which bridges over and compresses the arterial tube at its bleeding mouth, or a line or two or more on the cardiac side of it. And if it were a matter of any moment, this part need not always be left bare, for the needle could often be passed a few lines higher up, between the vessel and the cut surface, and without emerging on that surface, more or less of both extremities of the needle, viz., its head and point, are exposed externally on the cutaneous surface of the side or flap of the wound.

The *second method* consists in entering the needle on one side of the artery, pushing it behind, causing its point to emerge on the opposite side of the vessel, passing a loop of inelastic iron wire over its point, bringing the wire over the track of the artery and behind the stem of the eye end of the needle, drawing it sufficiently to close the vessel, and fixing it by a twist or half a twist around the needle. The wire with which the needle is threaded should be twisted that it may be readily distinguished. By means of this twisted wire the needle can be pulled out, after which the loop of wire is liberated, and can be easily withdrawn.

The *fourth method*, or that by a long pin, and a loop of passive iron wire, is a modification of the third, and differs from it only in a long pin, with a glass head, for facilitating its insertion, being substituted for the common sewing needle threaded with iron wire. Perhaps of all methods the third and fourth are the most secure. The principle in each of these is the same, but Prof. Pirrie says he likes the modification of using long pins when convenient from the form of the wound, as they can be so quickly introduced, so readily withdrawn, and all wriggling and entanglement of different kinds of wires with each other avoided.

The *fifth method*, or that by the twist, may be varied according to the extent of rotation of the needle, whether to a half or quarter rotation. The operator has, on the cessation of bleeding, a reliable proof that a sufficient degree of rotation has been given to the needle. This method may be practised with a long pin or with a threaded sewing needle, and with either it can be very quickly done; but of all methods of acupressure that by the twist with a long pin is the quickest.

In acupressure by the twist to the extent of a half rotation of the needle, the three first movements given to the needle are precisely the same as in the third method, above described, namely, it is entered on one side, pushed behind the artery, and its point is made to emerge on the opposite side. The needle is then twisted over the artery and fixed on the parts beyond. In this method the artery is to a certain degree both twisted and compressed. Prof. Pirrie says the first time he tried the method by the twist, a half rotation was given to the needle; but so little pressure when direct is sufficient to arrest hemorrhage; in other cases a quarter rotation was only made by it.

The *sixth method*, or that by transfixion and twist, consists, as hitherto tried, in transfixing the tube of the artery, causing the point of the needle to emerge on the surface of the wound, giving a quarter rotation to the needle and fixing its point in the tissues beyond the vessel.

The *seventh method* consists in passing a long needle through the cutaneous surface, pretty deep into the soft parts, at some distance from the vessel to be acupressed, making it emerge near the vessel, bridging over and compressing the artery, and dipping the needle into the soft parts on the opposite side of the vessel and bringing out the point of the needle a second time through the com-

existence of displacement between the vertebrae, was to be felt in the place of the spinous process of the vertebra above. When a circle was made round the body, on the level of the umbilicus, with a piece of cord, the prominent spinous process was found to be exactly four inches above the circle; it was accordingly fixed as the spinous process of the first lumbar vertebra. The lower limbs were paralyzed, as were also the bladder and rectum. The urine drawn off by catheter was not bloody."

At a consultation Dr. McD. strongly urged an operation, but his colleagues objected. The loss of power of motion and feeling subsequently became more marked than just after the injury; the urine dribbled away; the feces were passed involuntarily; on the ninth day the urine was neutral; on the eleventh alkaline, and containing copious muco-purulent deposit; a few days later it became bloody, and of a most offensive odour. Although placed on a water bed, and attended to most carefully, bed-sores formed; the penis became ulcerated, and the scrotum oedematous, and of great size. He suffered from thirst, flatulence, and pains over the bladder.

On the 30th of January, Dr. Brown-Séquard happening to arrive in Dublin, saw the patient, and expressed the opinion that trephining offered a chance for life. The following was the patient's condition: Pulse 100, regular, but feeble; tongue clean, rather dry; had rested tolerably well the previous night; no headache; complaining of flatulence, and has a tendency to diarrhoea; bladder completely paralyzed; urine constantly dribbling away; no urine accumulates in the bladder; he is absolutely unconscious of the discharges passing per anum; and fluid feces ooze incessantly from the rectum; the penis is swelled, and the prepuce ulcerated from constant contact with the urine; there is an ulcer as large as a sixpence at the root of the penis, in the fold between the penis and scrotum, and the whole scrotum is swelled, red, and superficially excoriated; back, over the sacrum, ulcerated to a considerable extent, but, except in one small part, not deeply; at this one part matter can be pressed out, showing that the ulceration extends to some depth under the skin. Upon the inner ankle of left foot, and the outer ankle of the right two smaller spots (dry and scabbed) exist, where ulceration has occurred apparently without pressure of any kind having taken place. Paralysis of motion is almost complete in both lower limbs; in this respect they are exactly alike. On doing his best to produce a movement in the legs, a slight motion is perceived in each groin; the muscles of the thigh, and of the calf, and of the toes, are motionless; no reflex movement can be excited; sensation is normal along the thighs, over the skin of the calf and shin; rubbing or pressing on the sole of the foot is not perceived; he can, as regards the thigh and calf, distinguish the compass points at the usual distance, as in persons who feel normally; he can tell what part of the thigh or calf is touched by the hand, and in these parts distinguish, with precision, heat and cold, and also pricking with a point. There is no difference in these respects between one limb and the other; in each foot sensibility is much impaired, and the sole of each is devoid of feeling altogether.

On the 3d of February Dr. McDonnell operated in the presence of Dr. Séquard and many surgeons of Dublin.

"The patient was not removed from the ward or from the bed on which he lay. This was in order, as far as possible, to avoid disturbing any callus which might possibly have already formed. He was put under the influence of chloroform as he lay on his back in his accustomed position; when chloroformed, the bed was carried opposite to the window. The patient was turned over on his face; in this position the seat of the injury was obvious from the prominence of the last two (?) dorsal vertebrae. A small spot of ulceration, not so large as a sixpence, existed over the most prominent spinous process at this part.

"An incision nearly five inches long was made with a strong scalpel over the spinous processes of the vertebrae (the two last dorsal and two first lumbar), with a strong curved bistoury, the slips of tendon on each side of the spines were divided. Keeping quite close to the bone the mass of muscle was detached on each side, and securely held apart by broad retractors well suited for the purpose. The spinous processes and laminae—in fact, the back of each vertebra as far out as the articulating process, was thus fairly and fully exposed. The

are absorbed, imbibed, or generated in the blood passing through an unhealthy inflamed tissue, there can be no doubt that, for the occurrence of pyæmia, inflammation of, or having a tendency to assume, a suppurative character, is absolutely necessary. The presence of purulent, irritating, and decomposing materials, and more or less of devitalized tissue at every point of deligation, renders it highly probable that the risk of pyæmia is much greater after ligature than after acupressure, which does not so readily give rise to these untoward local results. Acupressure requires a far briefer sojourn of the foreign body in the wound; the obliterating foreign body is safer and less irritating, because it is of a metallic and not of a textile nature; and the acupressure needle does not cause that mechanical division and strangulation of the arterial coats which is the inevitable result of the application of the ligature.

"I considered it a duty to give acupressure a fair trial. I wished to form an unprejudiced judgment regarding it, and the conclusion at which I have arrived is, that it has many and great advantages over the ligature. I have therefore resolved, in all suitable cases, to give it the preference."

Prof. P. regards the application of the ligature, by Ambrose Paré, to arrest hemorrhage, as the greatest single improvement in surgery, and he says, "We cannot bid adieu to the ligature, because there are some conditions in which acupressure cannot be used, as there are others in which it is impossible to employ the ligature; but, while many great operations have such a high rate of mortality in the practice of all good surgeons in all countries, it seems a duty not 'to rest and be thankful,' but to receive, and gratefully to adopt, acupressure, in the hope that some of the sources of danger may be modified or entirely removed."

36. *Acupressure*.—Dr. P. H. WATSON, Lecturer on Surgery and Surgeon to the Royal Infirmary and Chalmers' Hospital, Edinburgh, has published (*Ed. Med. Jour.*, July, 1865) an interesting paper on this subject, in which he relates nine cases where he has employed this hæmostatic measure, and discusses the questions—1st, as to its safety; 2d, its utility and application as contrasted with ligature and other hæmostatics; 3d, the prospect it affords of expediting the process of healing by the first intention.

The following are his conclusions:—

1. Acupressure may be employed as a hæmostatic agency in the instance of vessels as large as the posterior tibials without risk, so far as bleeding, immediate, consecutive, or secondary, is concerned.
2. Acupressure is easy of application, while its adaptation to situation and circumstances is as great, or it may even be greater than that of the ligature.
3. Acupressure is more trustworthy and satisfactory than either torsion, compression, or the use of the cautery.
4. Where primary union can take place, acupressure is likely to favour its occurrence; and, in three of the cases described, seemed of material service in this respect.
5. In the cases described, where suppuration or sloughing occurred, this was altogether independent of the use of acupressure, or the absence of the employment of the ligature, and referable to causes inherent in the individual cases.
6. In my opinion, the employment of acupressure in one or other of the methods suggested by Professor Simpson is safe, satisfactory, and well worthy of an extended trial.

37. *Carotid Aneurism perfectly cured by Starvation, Rest, and Iodide of Potassium*.—Dr. S. C. SEWALL reports (*Canada Medical Journal*, Oct. 1864) an interesting case of this. [In the following description, L. T. signifies lower triangle, or the space bounded by the clavicle, trapezium, and sterno-mastoid muscles. U. T. upper triangle, is the space bounded by the sterno-mastoid, the trachea, and inferior edge of lower jaw.]

On 9th March, 1864, M. D., hewer, æt. 24, having just returned from the shanties, applied to me for tumour on the neck that interfered with his breathing,

thra; bowels had not acted since the previous day, the opiate enema having checked the diarrhœa; the pupil was not affected; the atropia, as yet, was continued in the same dose as before. The penis and scrotum diminished in size, and the superficial ulceration much better. In the afternoon, Dr. Brown-Séquard accompanied me to see him; we then found that sensibility had returned in the soles of the feet, and that a decided return of motor power had taken place in the muscles of the thigh. Complaints of cough, which hurts him—in fact, he had caught cold from the exposure during the operation. Ordered iodid. potassii three grains, in decoct. cinchonæ flavæ, along with the atropia.

"5th. Pulse 108. Skin warm, but natural; tongue moist; had rested tolerably; no headache; appetite returning; had an egg for breakfast, and asked for a mutton chop for dinner; cough much less troublesome. Dr. Brown-Séquard again this day examined him along with me; we observed some œdema of the left leg and foot; sensibility is now almost, if not quite, normal all over the foot and sole. The sartorius, hamstring, and quadriceps extensor femoris are able to contract with considerable strength; we can perceive no sign of movement in the muscles of the calf, or in the toes; their motor power is still absolutely wanting. The most improvement has taken place in the state of the penis and scrotum."

After this he continued for several days to progress satisfactorily. On the 7th of Feb., sensation was found to be normal everywhere; and the motor power of the muscles of the thigh had much increased. On the 17th the expulsive power of the bladder was restored. Afterwards he had a rigor with sickness of stomach.

"19th. Pulse 125, very weak. Felt very weak to-day when being dressed. Bowels moved; discharge thin, and indicating diarrhœa; sickness continuing, not checked by ice, hydrocyanic acid, &c. Bladder has been washed daily with the turpentine emulsion as before. I believe the condition of the bladder to be certainly improved, and the voluntary power over it so likewise. He says he did not sleep at all last night, but does not know what kept him awake, as he had no pain.

"He died rather suddenly on the morning of the 20th, having been seen by the resident pupil about an hour before, and reproved for smoking, which he had been found doing by the night nurse. He was then apparently quite himself, and not in pain.

"Post-mortem examination made the same day (20th) in presence of the pupils. Body much wasted; no œdema.

"Head.—Considerable subarachnoid effusion, also some clear serum in each lateral ventricle; brain and its membranes healthy.

"Chest.—Lungs healthy, indeed remarkably so; no old adhesions; heart normal; no fluid in pericardium.

"Abdomen.—Stomach and intestines healthy; no lodgment in any part of the bowels; no ulceration in the rectum or the parts of the large intestine.

"Urinary bladder contracted to a small size, greatly thickened, and containing small collections of pus in its walls. Mucous membrane ulcerated, and covered with ash-coloured shreds of adherent membrane; both ureters thickened, so as to be as thick as the little finger; the mucous membrane lining each was in the same condition as that of the bladder, and on the left side this extended all the way up to the kidney, the pelvis of which contained pus; its structure was disorganized by abscesses.

"On examining the bodies of the vertebrae on their anterior aspect there was no inequality which made it obvious where the injury had taken place. The lumbar and lower dorsal vertebrae were removed; the spinal cord and its membranes were taken by cutting through the laminae of the dorsal vertebrae. The dura mater of the cord was uninjured; the portion of it corresponding to the piece of bone removed at the time of the operation was covered externally with lymph; the surface next the cord was healthy; there was no trace of inflammation within the dura mater. The cord was not inflamed or softened; it was indented at a point corresponding to where the bone was displaced; and when the finger was passed along it gently it felt as if softened at this indentation, but there was neither red nor white softening of its structure, and this feeling was

38. *Idiopathic Aneurism of the Distal End of the Ulnar Artery Successfully Treated by Compression.*—Mr. HAYNES WALTON publishes (*Med. Times & Gaz.*, Aug. 12, 1865) the following case to illustrate the therapeutic value of compression, and also as it completes the evidences of the general applicability of this measure, whenever it may be resorted to. "It would be impossible," he remarks, "to find an example of aneurism better fitted, in all respects, than this seemed for the treatment by ligature, because of the size of the vessel, the superficial position, the relation of parts, and the nature of the collateral circulation; but, withal, there remained still the peculiar risks incidental to an operation on a bloodvessel, and common to all surgical operations, for, unfortunately, there is not a diminution in the risk in proportion to the lesser size of a wound; therefore I did not hesitate, but at once resolved on trying pressure."

"On December 2d of last year, a student in the St. Mary's Medical School, aged 21, discovered a pulsating tumour over the ulnar artery, an inch from the wrist, and applied to me; he could find no cause for it. I made a careful examination, and satisfied myself that there was before me an undoubted instance of ulnar aneurism; it was about the size of a horse-bean."

"It is needless to go into detail. Suffice it to say, I applied a cork compress with strapping-plaster on the tumour, and over about three-quarters of an inch of the proximal portion of the artery. • I took this off a few times, and immediately re-applied it, as occasion seemed to require. The arm was kept in a sling."

"Although the aneurismal pulsation was reducing, I thought it right to discontinue this kind of compression, because the hand swelled, and in a fortnight I changed it for a little spring clamp. This appliance, like the other, was kept on perpetually, only shifted a little higher or lower occasionally to afford relief. In a fortnight more—that is, a month from the commencement of the treatment—the aneurismal sac was less in size, and contained a clot. Only a feeble circulation could be felt in it, and a less than natural impulse on the vessel beyond the sac. The force of the artery entering the sac was also less. The sling was now laid aside, and the hand and arm used moderately. Three weeks later there was no pulsation in the sac, which was much smaller, the clot being much less. Neither was there pulsation on the distal side, and but very faint movement in the artery within half an inch of the sac."

"The clamp was now taken off occasionally—that is, sometimes during the night, sometimes during the day."

"At the present time (July 20), nearly eight months having passed away, there is not the slightest evidence in pulsation or clot of the aneurism. The only difference to be found in the arm is the absence of pulsation of the ulnar artery in the spot where the aneurism was formed and beyond it."

"That a better result could be got, with less injury from treatment or even inconvenience, I think very unlikely. I am fully satisfied, and so is my patient. I am well aware that the compression may have been applied somewhat differently and the details otherwise managed; but this really matters not in such instances if principle be kept in view and the processes by which the cure is to be established are obtained."

39. *Operation of Trephining for Spinal Fracture.*—Dr. R. McDONNELL brought before the Pathological Society of Dublin a highly interesting case of this. The subject of it was a thin, spare man, admitted into Jarvis Street Hospital, December 28, 1864. "A short time before," Dr. McD. states, "while working in the hold of a vessel, from which a cargo of wheat was being discharged, a sack of corn had fallen upon him from a height of seventeen or eighteen feet. The weight fell upon the back of his head, neck, and shoulders; he sank beneath it, and to use his own expression, was 'doubled up.' Immediately after the injury his lower limbs were powerless; he was at once conveyed to hospital, where I happened to be at the moment of his admission; I had, in consequence, an opportunity of examining his spine at the seat of injury before any tumefaction had occurred. I found that the spinous process of a vertebra, corresponding with either the first lumbar or the last dorsal, was more prominent than natural, while a marked depression, leaving no doubt whatever as to the

is due to Langenbeck; although the suggestion so to use it was made by Ollier. Malgaigne in 1834 advocated the preservation of the periosteum in resections, on the ground that in children it formed a basis for new bone, and in adults for fibrous tissue; and Sexton, Sen., in 1839, preserved the periosteum of a partially carious rib with full knowledge of the results to be obtained from doing so. Since then the same thing has been done by many surgeons; but the transplantation of periosteum is manifestly a step in advance of its mere preservation.

The results hitherto obtained from osteoplastic operations have been very satisfactory. Langenbeck has recorded two cases of rhinoplasty; in the first of which firm new bone was formed in four weeks, and in the second in eight. Dr. Kade saw him operate on a third case, and saw the patient again six weeks afterwards. The operation had been very difficult and tedious; and the point of the new nose had sloughed. At that time no bone could be discovered in the bridge.

On the hard palate the results have been more favourable; and Dr. Kade refers to eleven cases of uranoplasty by Langenbeck, and to one case of his own, performed in January, 1862, in which he fully describes the several stages of the operation. The patient was a peasant lad seventeen years old, with congenital fissure of the lip, hard palate, and velum, on the left side. The staphyloplasty and uranoplasty were both accomplished at one sitting.

The first step of the operation was to pare the edges of the fissure. In doing this the knife was carried from behind forwards and from below upwards, so that parts still uncut were not obscured by bleeding. In consequence of the scanty development of the velum it was impracticable to remove its margin in a continuous strip; and the paring was done piecemeal, and with some difficulty. The fissure of the palate itself was pared more easily, and the operator found it most convenient to stand behind the patient, supporting his head upon his breast. The same position served for the lateral incisions and for the separation of the periosteum. After paring the fissure the author proceeded to make his lateral incisions; thus departing from the practice of Langenbeck, whose second step is the section of the muscles of the velum. Dr. Kade defends his own practice partly because he thus proceeds continuously with what can be done from behind the patient, and chiefly because the myotomy is attended with acute pain and free bleeding, and requires a long interruption of the operation. In the case under consideration, the cleft of the hard palate being unilateral and not very wide, and the palate process of the superior maxilla not too small, it was sufficient to make a single lateral incision, on the side on which the palate process was not united to the vomer. The third step, the separation of the muco-periosteal covering of the palate, should be commenced on the right side from the margin of the cleft, on the left side from the side of the teeth. When the muco-periosteal covering has been separated by an elevator as far back as the posterior margin of the palate plate of the palate bone, the mucous membrane of the velum must next be separated from this margin. For this purpose a straight probe-pointed knife should be carried along the margin from within outwards, as far as the hamular process. In raising the periosteum, it is necessary to be very careful to avoid the incisive foramen and the posterior palatine foramen, which give passage to the nutrient vessels. It is easy to avoid the naso-palatine artery, which passes through the incisive canal, since the fissure is usually small anteriorly; and no very extensive separation of periosteum is there required. In experiments on the dead subject, the author found the anterior palatine artery, which passes through the posterior palatine foramen, always uninjured, even although he separated the periosteum with but little care. He thinks, moreover, from the very free anastomosis upon the palate, that the vitality of the flaps would not be endangered, so long as one of the nutrient vessels remained intact. The fourth step is the introduction of the sutures, which can be done more easily while the velum is tense than when it has been relaxed by myotomy. The author used nine sutures, five in the palate and four in the velum. As each thread was passed, he stuck together its free ends by a bit of wax, and gave them in charge to an assistant. The fifth step was the myotomy, for which a sickle-shaped knife was thrust through the velum, below and somewhat external to the hamular process, towards the posterior

spine of each exposed vertebra was then taken hold of in a strong pair of necrosis forceps, and cautiously but firmly shaken to try whether any fracture of the posterior arch, or of the processes could be detected. No such fracture existed. [This I expected, as I had reason to suppose from the nature of the injury, that if any fracture existed it was one of the body of the vertebrae.]

"On examination I was satisfied of the displacement existing in the parts with which I had to do; it was as follows: The last dorsal vertebra (?) was as it were twisted, so on the left side the inferior articulating process was raised up, and although not completely dislocated, yet it stood prominently backward from the corresponding process on the bone below; on the right side the superior articulating process of the same vertebra was in exactly the opposite predicament; it was displaced so as to be as if pushed in deeper with the process to which it corresponded on the vertebra above.

"I determined to remove the spinous and inferior articulating processes of this vertebra by cutting through the laminae. After waiting for a time while sponges and cold water were applied to stop bleeding, I first took off a part of the spinous process of the part I was going to remove, and divided the interspinous ligaments above and below. I next, with a straight pair of bone forceps, cut through the lamina on the patient's left side (on which side I stood myself). This, owing to the displacement I have already described, was quite easily effected, as, of course, the lamina, as well as the articulating process, was raised up somewhat on this side. On the right side, however, the opposite state of things made it much more difficult to succeed in cutting through the lamina. I could not succeed at first with the cutting forceps, but was obliged to use Hey's saw guarded, so that it could not go in beyond a certain depth.

"I was unwilling to use the saw, lest the unavoidable shaking might injure the callus already thrown out, and tend to undo any repair that nature had already commenced.

"I finally succeeded in dividing the lamina on the right side with the forceps. I then grasped, in a pair of necrosis forceps, the root of the spinous process of the portion now separated, and raising it cautiously, divided, with a scalpel, the ligamentous structures which now alone prevented its removal. On sponging away the blood, the theca vertebralis came into view; a small portion of the arch of the vertebra above was also removed. The spinal cord was obviously pushed backwards, and had lain very close under the arch of the bone taken away. The vertebral theca was not tense; there was no evidence of either blood clot or fluid being pent up within it; it was, therefore, not opened, although I had at first intended to do so, knowing very well that there is no real danger in this proceeding.

"Slight venous hemorrhage took place from the veins underneath the bone.

"The operation lasted about an hour; it was protracted by long rests now and then, waiting until the sponging with cold water and infusing of matico checked oozing of venous blood, as it was necessary to see with great precision what one was doing. I do not think that more than five, or at the most six, ounces of blood were lost. A couple of sutures were put in at the upper part of the wound; the lower part was left open, a small tent of soft sponge alone being introduced.

"After the operation the patient was replaced on his back, pads of spongopiline being placed above and below the wound, and the sacrum protected by a circular cushion. He lay on a water bed, nearly flat, the head but slightly raised, and a cushion being passed behind the knees. He got an opiate enema; while being arranged a jet of urine was thrown from the orifice of the urethra; of this he was not conscious.

"The same evening he commenced taking the 96th of a grain of atropia in solution, to be continued three times a day.

"The bladder and the large intestine were carefully washed by injections of tepid water and thin flaxseed tea.

"February 4th; day after the operation; pulse 120, regular but weak; had rested tolerably, sleeping for a couple of hours at a time, some headache, and heat of head and skin; tongue dry, but not coated. When about to wash out the bladder, the urine was observed to come in a jet from the orifice of the ure-

"The patient having been put under the influence of chloroform, I cut away the stump of the nose, and thus left a free bleeding edge around the anterior osseous margin of the nares. I then formed a flap, the shape of a leaf, on the forehead, the part corresponding to the footstalk reaching to the roots of the hair. The upper half of the flap I dissected from the pericranium, and then cut deeply and firmly down to the bone. The lower half of the flap I detached with a blunt instrument, tearing the periosteum from the bone, and leaving the latter completely bare. No vessels required ligature. I then twisted the narrow part of the flap, where it remained attached to the root of the nose, and found I could easily apply its edges to the raw margin of the stump. Two silver wire sutures were inserted on each side, and in the intervals sutures of horse-hair. The footstalk was made to form a column, and was attached by a wire suture.

"Next day the parts were a little swollen, but warm and healthy.

"On the fifth day it was found that the horsehair sutures had caused a little ulceration, and they were removed. The wire sutures were retained, having caused no irritation. On the eighth day, the incisions having united, all the sutures were removed. Three weeks after the first operation the twisted neck was cut across, formed into a needle shape, and inserted into a depression cut into the integument over the bridge of the nose, and fastened by a silver suture. It healed by the first intention.

"The wound in the forehead was dressed with lint soaked in water. Granulations soon sprang up and covered the whole surface of the bone, and cicatrization rapidly took place.

"She was dismissed on the 13th of June, remarkably improved in appearance, and with a very fair nasal organ. The upper part of the nose was decidedly firmer and more solid than in a former case in which I performed rhinoplasty successfully, but I cannot affirm that bone had been deposited at the date of dismissal.

"Some time after leaving the hospital I learned that she was seized with disease of the kidneys and anasarca, of which she died. But the operative procedure was attended with such success that I shall have no scruples in adopting the same method in other cases which may come under my charge."

42. *A Second Series of Fifty Cases of Ovariectomy.*—Mr. T. SPENCER WELLS communicated to the Royal Medical and Chirurgical Society (June 27,) a table showing at a glance the result of the fifty operations; the recoveries being to the deaths in the proportion of two to one. The most favourable age for the operation appears to be before twenty-five or above forty. The conjugal conditions of the patients seem to have little effect on the result. Hospital cases have been more successful than private cases. The result of the operation depends but little on the season of the year in which it is performed. Adhesions of the tumour to the abdominal wall and intestines are of little importance; adhesions to the bladder, iliac vessels, ureters, or rectum are very unfavourable. A short pedicle is also very unfavourable. There is no doubt that the cases where the stump of the pedicle can be kept external to the peritoneum are much more uniformly successful than those in which the stump is allowed to sink into the abdominal cavity. Of this latter class of cases the least unfavourable are those in which the ends of the ligatures are cut off short. The size of an ovarian tumour does not of itself affect the result; but size and solidity together, by affecting the length of the incision necessary for the removal, appear to be of some importance. A short incision is much more favourable than a long one. The probable result of ovariectomy can be estimated with far greater accuracy by a knowledge of the general condition of the patient than by the size and condition of the tumour.—*Med. Times & Gaz.*, July 29, 1865.

43. *Laceration of the Internal Lateral Ligament of the Knee-joint.*—Mr. W. B. PEEBLES relates (*The Medical Press*, July 5, 1865) the following interesting case of this rare accident:—

"In May, 1859, I was sent for to visit a gentleman, aged 32, who in stepping from a stone, used for mooring boats to, sprained his left knee and fell helplessly to the ground. I found the limb slightly flexed, the toe everted, and some swell-

merely the result of pressure, which had not given rise to structural disorganization.

"The body of the first lumbar vertebra was fractured, and this vertebra was displaced backwards; the line of fracture separated only a small portion of the body of the broken vertebra. The intervertebral substance between the last dorsal and first lumbar vertebrae had been torn, and the body of the first lumbar was displaced backwards, as shown in the preparation exhibited. A small blood clot occupied the space above the projecting body of this vertebra, lying between the body of last dorsal vertebra and the anterior aspect of the dura mater of the cord. The spinal cord was therefore pushed backwards by this effused blood, as well as the body of first lumbar vertebra—not simply by the sharp ridge of bone, as might be at first supposed from looking at the woodcut. It was, of course, corresponding with this part that the indentation existed upon the spinal marrow."

Dr. McDonnell observed, in conclusion, "that the autopsy showed at all events that the diagnosis arrived at in this case was accurately correct, not only as to the position of the fracture, but as to the injury of the vertebral theca and medulla, which was not supposed to be torn or divided. He regretted that the posterior arch of the last dorsal vertebra had not been removed entirely, as this would have added nothing to the danger and little to the difficulty of the operation. The amelioration which followed the operation in this case, he considered the best reply to those who argue that, as the body causes in general the pressure, and as the body of the vertebra cannot be reached by operation, no good can follow from trephining the spine. It is certain that in this case good did follow the removal of the counter-pressure. Some persons supposed that the operation of trephining the spine was of so hopeless, and, at the same time, so formidable a nature, that to perform it was merely to strew thorns in the path of the man who was on his way to the grave. He did not think so, and he could affirm with truth that this patient did not, at all events, suffer *more* after the operation than before it. On the contrary, the history of the case shows that in several respects his condition was ameliorated; and he pointed to other recorded cases to show that his life was *not* materially shortened, or shortened at all, by the operation."

40. *Osteoplasty*. By Dr. KADE.—The word osteoplasty was first used by Pirogoff to denote his modification of Syme's amputation at the ankle-joint; and it was afterwards used for a class of operations similar in principle, in which cut surfaces of bone were opposed and made to unite, such as resection of the elbow and of the knee. Langenbeck, however, employed the word in a different sense, to denote his first case of rhinoplasty with transplantation of the frontal pericranium, and afterwards for two cases of "osteoplastic" resection of the upper jaw, and for his first case of uranoplasty. Hence the meaning of the word has become obscure. It is evident that there is nothing truly osteoplastic about Pirogoff's amputation, or about resection of the knee, or in separating portions of the upper jaw, and replacing them after the removal of a tumour. For the future, the term osteoplasty should be applied only to operations in which periosteum is transplanted for the purpose of producing new bone, as in the nose and palate cases mentioned above.

After tracing down the history of our knowledge of the power of periosteum to produce bone, and after referring to the experiments of Flourens, Dr. Kade describes the more recent ones of Ollier. He detached strips of periosteum from the tibia of rabbits, leaving them adherent to the bone at one end only, and wound them about among the muscles and under the skin in various directions: thus obtaining new bone of any desired shape. In a second series of experiments he completely severed the connection between the strip and the bone on the fourth day; and, in a third, he severed this connection in the first instance, and transplanted the periosteum to various parts of the body. In all cases a formation of bone was the result; not a mere calcification of connecting tissue, but a formation, possessing all the characteristics of osseous structure.

The first application of this property of the periosteum to operative surgery

"The treatment recommended by Sir C. Bell for this laceration is a stiff splint at first and then a jointed one. Locally, leeches followed by a succession of blisters. To this I would add, when walking is resumed, a boot with the sole increased in thickness on the inner edge. This occurred to me in consequence of my patient when walking on the slope of a hill finding it easiest to walk across the slope with the injured limb the lower one, the weight being thus thrown on the outer edge of the foot. The reason of this appeared to be that it tended to throw the limb into the perpendicular and ease the ligament. If a jointed splint should be objected to, a laced knee-cap fortified with straps and buckles should be used, and great caution in every movement observed. In bed especially the knee-cap will be necessary.

"As recurrence of the accident in a greater or lesser degree may be looked upon almost as a certainty, it is worth considering whether incomplete ankylosis might not be advisable for those whose avocations place them in positions not otherwise dangerous."

44. *A Sixpence lodged in the Larynx during Ten Weeks.*—Dr. J. B. SANDERSON and Mr. J. W. HULKE related to the Royal Medical and Chirurgical Society the following case of this:—

On November 2d, the patient was conversing in a public house, having a sixpence in his mouth, when something in the conversation having excited his laughter the sixpence disappeared, and immediately he fell to the ground suffocated. For about an hour there was excessive dyspnoea, which, however, subsequently disappeared so completely that on the following day he experienced no bad effect from the accident, excepting that he was unable to speak aloud, and had slight dysphagia. During the succeeding ten weeks he lost flesh and strength, but experienced no difficulty of breathing, either on exertion or otherwise; the voice remained as at first. On January 6th, his breathing again became embarrassed. After lasting for some hours the dyspnoea suddenly ceased, apparently in consequence of his having tripped in going down stairs. On the following day he attended at Middlesex Hospital for laryngoscopic examination. The sixpence was seen without difficulty on the first introduction of the laryngeal mirror. It was horizontally placed in the glottis, below the false vocal cords, which covered a portion of its circumference at each side, being in such a position that a transversely oblong breathing space was left between its free edge and the arytenoid cartilages. Several attempts having been made without success to extract the coin through the upper opening of the larynx, by means of loops of wire specially contrived for the purpose, it was resolved to have recourse to laryngo-tracheotomy. An incision an inch and a half long was made in the middle line from the thyroid cartilage downwards, the edges of which were held apart above and below with two pairs of Troussseau's dilators. The coin could be readily felt by forceps introduced through the wound. Several attempts were made to seize it, in one of which it was displaced upwards into the patient's mouth. At that instant the patient made a sudden gulp, the coin slipped out of reach, and the patient, who had become conscious, made signs that he had swallowed it; it was recovered on the following day. After the operation the patient progressed so favourably that he was able to leave the hospital on January 18th, feeling no effect from the accident, excepting that the voice was still husky and feeble. By February 20th it had regained its natural character.

Dr. Webster referred to several cases on record, and especially to the well-known case of the celebrated engineer. He adverted to a case which occurred in his own practice, in which a cherry-stone remained in the bronchus sixty-eight days, and was then expelled by coughing. Louis relates a case in which a small gold coin remained four years in the trachea, and Dupuytren one in which a coin remained ten years. John Stevenson, an old Covenantor, had a bit of mutton bone the size of half a hazel-nut in his trachea fourteen years and nine months, and then coughed it up, and got well. M. Sue met with the case of a girl who had had a piece of chicken bone in her bronchus seventeen years. She coughed it up and got well. Dr. Webster then asked the opinion of the surgeons present as to the advisability of opening the trachea in such cases.

wall of the pharynx, and the velum was then divided in its whole thickness, by sawing movements of the knife, up to the posterior margin of the palate bone. It is desirable to divide the levator and circumflexus palati at a distance from the median line, where they are small, and prior to their fan-like expansion; but it is an error to suppose, with Langenbeck, that the palato-pharyngeus can be divided by the same incision. The author thinks that Langenbeck's incision is insufficient to relax the velum; and that the palato-pharyngeus or posterior pillar, and the palato-glossus or anterior pillar, require to be separately divided. He neglected to do this, and the fissure of the velum did not unite after his first operation, but only after a second, in which the pillars were cut through. After the myotomy the patient requires a period of rest; and then the operation is completed by tying the sutures.

In the author's case the fissure of the palate was perfectly closed, and the second (successful) staphyloraphy was performed a month after the first. In March the hare-lip was united, and healed by the first intention; and, at the end of the same month, a needle discovered new bone in the place of the former cleft of the hard palate. The speech was still defective, the patient being stupid, and having neglected to carry out the necessary vocal gymnastics.—*Half-Yearly Abstract*, vol. xlii, from *Schmidt's Jahrb.*, 1864.

41. *Rhinoplasty, from the Forehead, the Periosteum included in the Flap.*—Dr. GEO. BUCHANAN, Surgeon to the Glasgow Royal Infirmary relates (*Lancet*, Aug. 5, 1865) a case of this.

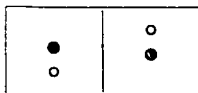
Dr. B. remarks: "It has long been known that bone is in great part dependent on the periosteum for its vascular supply, and that the removal of this membrane to any great extent is usually followed by partial necrosis and exfoliation. Of late years, however, it has been found that the periosteum may be separated from the bone to a limited degree without danger of necrosis, and that in the transplanted tissue a deposit of bone readily takes place. Advantage has been taken of this knowledge by many practical surgeons, especially on the Continent, foremost among whom must be named Professor Langenbeck. After a visit to Berlin, where I had the advantage of seeing that celebrated surgeon perform the operation for renewing the hard palate, I determined to try osteoplasty in the first case which afforded an opportunity.

"I have not met with a case of cleft-palate since, but the success of some of Langenbeck's operations is most encouraging. I saw several in which the gap was completely filled up. One in particular I remember, where, with the patient's permission, I pushed a needle against the new palate, and found that its point impinged against solid bone, which was formed in the transplanted periosteum.

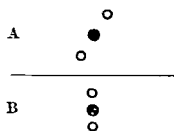
"In the following case I applied the principle to the formation of a new nose. I did so with confidence, because it had been done with success by Langenbeck and others, and I had no fear of exfoliation of the cranial bones. Some months previous to this time I had under my charge several cases in which large portions of the cranial bones had been completely denuded of periosteum, and in most the recovery of the bone was complete, granulations having sprung up all over the surface. Besides it is to be remembered that the *cranium* is very freely supplied with blood from within, so that there is little risk of exfoliation unless the bone itself is injured. Acting on this knowledge, I had no hesitation in stripping the frontal bone of part of its periosteum, and the result of the case showed it can be done with perfect safety.

"Jane S., aged twenty-four, was admitted to the Royal Infirmary February 25, 1863. Three years previously she was a patient in this hospital with lupus affecting the nose. The disease was arrested after three months' residence. On admission it was found that the whole organ, from the nasal bones downwards, had been destroyed by the disease, but the edges were completely cicatrized, and there was no appearance of a return in any other part. She had employed an artificial substitute, but it was so inconvenient and troublesome that she had long discontinued its use, and was anxious to have the deformity remedied. I accordingly yielded to her request to have the operation performed, and accomplished it in the following way:—

(*Annales d'Oculistique*). I now determine the distance two points must be placed from one another, in order that the patient may be able to combine them in the stereoscope. In the sound eye this is 6—7½ centimetres; let it be in our case 3 centimetres; I give the patient a series of slides, marked with two dots, 3, 3½, 4 . . . 12 centimetres apart. These dots are black wafers, having a diameter of 2 centimetres. Above the one and below the other, smaller red wafers are fixed, which the patient must always see, in order to feel assured that, when he only sees *one* black dot, he is really seeing with both eyes, and not perhaps suppressing the image in the squinting eye.



"This disposition of the red dots has the further advantage of teaching the patient to see them vertical, as in B, and not sloping, as in A, which he does first. He soon learns this, and may proceed to the next slide—



"If it is desirable to extend the exercises destined to combat undue convergence, all that is necessary is to use the same slides in a stereoscope deprived of its prisms and convex lenses. The exercises are thus rendered more difficult, and hence more effectual.

"If, on the other hand, the case is one of short sight, with divergent squint, the exercises are commenced with a stereoscope without glasses, and finished with one with glasses.

"If the divergence or convergence has been driven up to the limits of the field of the stereoscope, the exercises can be extended without its aid by means to be mentioned at a future time.

"Long before the patient has gone through all these exercises, I make him combine letters, then words, first larger-typed, gradually smaller-typed ones, placed 7 centimetres apart, just as he did the wafers.

"Of course, there are a variety of minor practical points to be attended to to effect our object rapidly.

"The following exercise consists in presenting in a stereoscope to the two eyes two pages of perfectly similar print, gradually taking less and less sized type. The patient endeavours to simultaneously perceive the right and left hand, out of which strokes certain letters are formed, the right-hand ones being perceived by the right, the left-hand ones by the left eye.

"This and the previous exercises, which I direct some to perform, also with a stereoscope without glasses, *i. e.*, letting them accommodate for a near point with parallel visual axes, so break the patient of converging when he wishes to accommodate and from suppressing one retinal image, that at one time, when he uncovers the one eye, he sees everything double about him.

"When he has got thus far, the patient can sometimes at once combine the double images: in such a case the strabismus is cured. In other cases the patient has to be taught to move his eyes in the ordinary way, *i. e.*, to be able to make the optic axes intersect at any one object. Sometimes, to teach him to do this, is the most difficult part of the treatment.

"To guard against relapses in regarding even the smallest objects, I employ the following common experiment. If you hold your finger between you and

ing accompanied with pain over the site of the internal lateral ligament. On asking him if anything similar had occurred before, he said that ten years previously, when riding through a rabbit warren, the horse stepped into a hole and fell with him; that his left leg was held between the body of the horse and the ground in a state of eversion; that swelling and pain in the joint resulted; and that antiphlogistic treatment was adopted; but that no flexion or extension, as recommended by Hey for the internal derangement of the knee-joint, was resorted to. Subsequently the joint had received several twists.

"After the swelling and pain had been removed by means of leeches, cold lotions, and rest, the joint was strengthened by sea-water douches, iodine, and bandages. In the following shooting season he was able to walk for seven hours on level ground; but upon going on hilly ground the limb at once felt weak.

"In the following November, I was suddenly summoned to him again. He had been walking down a steep incline overhanging the sea, with a gun in his hand, when the joint 'gave' under him, and he rolled down till stopped by a bush. He might have remained there for an indefinite period, as the place was secluded, had not some people come within call. On this occasion the limb presented the former symptoms in a more marked degree. There was much eversion of the foot, a considerable amount of pain, and effusion into the bursa which lies over the ligament. On pressing with the tip of the finger deeply at this point, an interval could be felt between the femur and tibia. I told him that I was of opinion that the ligament had been torn across, and that after antiphlogistic treatment the limb should be kept in an immovable apparatus. I applied a starch bandage strengthened by layers of pasteboard, leaving an opening for leeching, &c., and recommended a laced knee-cap to be worn constantly in bed as well as when moving about after it was removed. Six months after he went to Professor Fergusson, who, he told me, said that the limb had the signs resulting from Hey's displacement, 'but that there had been something else.' What he considered that to have been I believe he did not state. He recommended an elastic knee-cap and chloroform liniment. This opinion, coming from so high an authority, shows that the two accidents are closely allied, but they differ in some respects.

"I do not mean to say that the cartilage may not have been out of its place and have slipped into it again, but there were points which made me believe that such had not been the case. For instance, the joint had been made to assume the appearance of 'in-knee' suddenly and violently (subluxation), but the patient was able to bring it into the slightly flexed position in which it lay when I first saw it. It was not, as Miller says, 'immediately rendered stiff,' nor was the accident produced as Hey's is said generally to be—viz., 'When a person in walking strikes his toe, with the foot everted, against any projection, after which he immediately feels severe sickening pain in the knee, and is unable to straighten the limb.'—(Sir A. Cooper.)

"On each occasion the ligament was subjected to sudden direct violence, and the pain (sickening at first) referred to its centre. It is probable that on the first occasion complete rupture took place, followed by lengthened union (the foot remaining everted); that on the second the ligament was only violently sprained (I could not sink the tip of my finger between the bones), and that on the third, complete rupture took place.

"The symptoms of this injury differed from those of Hey's derangement in the greater amount of motion (passive, of course, on account of the pain), which the joint was capable of, the small spot to which the pain was referred, the inconsiderable amount of swelling, and the mode of its occurrence. There is much obscurity still as to the true nature of the 'internal derangement,' but from the position, direction, and connections of the internal lateral ligament, from the eversion of the foot when it is injured, and from the permanence of the eversion after Hey's lesion, it is probable that it never escapes being more or less injured when the relative positions of the cartilage or condyle are suddenly altered, and that the closer the union which it is so desirable to bring about between the torn fibres is, the less liability there will be to recurrence of the accident. Hence the necessity of handling the joint as gently as possible, and of keeping it at perfect rest for a long time after the injury.

vative treatment has been put into force, only aggravate the disease. When there is but little congestion, mild aperients are very useful, such as equal parts of cream of tartar and magnesia, alternating with pills of gum ammoniac, sulphate of potass, and aloes. In drinkers these means will not be borne, and minute doses of rhubarb and magnesia may be substituted. Cold water should be applied to the forehead and eyes, while the lower extremities are irritated by sinapisms, dry cupping, &c. At a later period are indicated stimulant liniments to the circumorbital region, flying blisters first to the nape, or behind the ears, and then to the temples; and in very obstinate cases, the various internal stimuli, as camphor, arnica, strychnia, &c., may be tried.

M. Triquet states that in smokers and drinkers an insidious and obstinate form of otitis frequently becomes developed. There is a kind of numbness or torpor of the ear, with a sense of cold, but rarely any pain. There is no cerumen in the meatus, the membrane and ossicula are in a normal state, and there is little or no vascularity. There is, however, extreme dryness with very minute granulations of the pharynx, nasal fossæ, tubes, and middle ear. Frequently both ears are affected, but one has always commenced being so before, and is more deaf than the other. The deafness, without being very troublesome at first, rapidly increases. Noises in the ear almost always exist at an early period, and it is of importance to notice that they assume a hissing sound. The affection exhibits itself in three periods: 1, that of excitement, in which there is intolerance of noise, and a hissing noise in the ear; 2, that of depression, in which the hissing sound disappears, or only remains as a distant and feeble echo; and 3, that of a paralytic condition of the auditory nerve, in which the sense of hearing is more or less completely, and often permanently lost. In this period there are also often trembling of the tongue, embarrassment of speech, and disturbance of vision. The prognosis is very unfavourable, for those patients alone are susceptible of cure who will consent to leave off the bad habit which has produced the affection. For treatment, in the early stages cupping of the mastoid processes and drastic purgatives, and then alteratives, as calomel, sulphur, and small doses of arsenic, are indicated. Locally stimulating fumigations, and weak injections of strychnia or veratria have proved useful; electricity has always done harm.—*British & Foreign Med.-Chir. Rev.*, July, 1865, from *Annales d'Oculistique*, March, 1865.

47. *Foreign Body lodged in the Anterior Chamber for Twelve Years successfully extracted.*—Dr. SAMISCU relates (*Klin. Monatsbl. für. Augenh.*, 1865) the following case:—

A man, aged 31, applied on the 25th November on account of an inflammation of his right eye. He stated that it had been injured twelve years previously whilst breaking stones; he himself treated the consequent inflammation by the application of cold. In a few weeks he recovered with the exception that the vision remained much impaired. So he continued till three weeks ago, when, without apparent cause, the eye became red and soon afterwards painful. On examination a cicatrix was seen in the cornea; the aqueous humour was turbid; immediately below the pupil there was a blackish body, pyramidal in shape, and surrounded by a light-grayish covering; in the pupillary space there were some remains of a cataract; atropia acted slowly and imperfectly. The foreign body was extracted and a large piece of iris was at the same time excised. The after-treatment consisted of the use of the compressing bandage and of atropia. Already by the third day the pupil was dilated *ad maximum*, the aqueous humour had become clear, and the congestion of the subconjunctival vessels had much diminished. The patient was discharged on the 16th December; he could then count figures at the distance of a few feet, and the eye was free from irritation. The foreign body was a fragment of stone 5 mm. long and 2½ mm. thick.—*Ophthalmic Review*, July, 1865.

48. *Ointment of the Yellow Amorphous Oxide of Mercury in Conjunctivitis and Pterygeticular Ophthalmia.*—Dr. PAGENSTECHE recommends this ointment as possessing an almost specific action in the treatment of pterygeticular ophthalmia. He gives the following short sketch of the disease in order to indi-

Mr. Thomas Smith begged to be allowed to add to the various means for dislodging foreign bodies from the larynx that had been mentioned, one other expedient, namely, that of drawing through the larynx from below a small piece of sponge attached to a piece of silk. This plan he had adopted successfully in a case of laryngeal obstruction after tracheotomy, where a small tent of sea-tangle weed had escaped into the cavity of the larynx, and had become lodged there. The thread in this case was passed on a probe through the tracheal wound and larynx into the mouth, and the sponge being tied to the opposite end, and traction made, the foreign body presented itself in the mouth. The advantage of tracheotomy in these cases was obvious. If the foreign body were in the larynx, it allowed air to enter the chest freely, so as to give the full expulsive effect to coughing when the tracheal wound was for a moment closed; by means of it the surgeon could, without danger to the patient's life, make attempts to dislodge the foreign body from below; while if the foreign body were in the trachea or bronchus, a large tracheal opening gave the best chance of escape. He related two cases—one where a plum-stone in one case, and a tamarind stone in another, were shot out from the wound by a strong expiratory effort within a few minutes after the performance of tracheotomy. He believed that attempts to seize movable foreign bodies in the trachea by means of forceps were quite useless, while he could bear testimony to the value of Mr. Birkett's advice, that if attempts were made from below to push foreign bodies out of the larynx, a good-sized elastic catheter should be used, and not a silver probe.—*Med. Times and Gaz.*, June 24, 1865.

OPHTHALMOLOGY.

45. *Orthopedic Method of Curing Certain Cases of Strabismus.* By EMIL JAVAL.—This paper was read before the Heidelberg Ophthalmological Congress, and we are indebted for the following translation of it to the *Ophthalmic Review* (July, 1865).

"Permit me to lay before you the general outlines of an orthopedic method of curing certain cases of strabismus by evoking and exercising the patient's binocular vision. The method consists partly in an application of the stereoscope. To attain our object with the least possible expenditure of labour and time, the exercises which I propose must be performed, according to circumstances, either before or after tenotomy. They often suffice to effect a cure without any operation.

"The series of exercises I have proposed are intended to break the patient of his habit of converging or diverging the deviated eye, and, what is more difficult, of suppressing its retinal images. In most cases the patient is, above all, directed to always keep one eye, especially the sound one, covered. Every one will doubtless concede the utility of separately exercising the amblyopic eye, keeping the sound one closed. But, besides this, we must combat the habit the squinting eye has acquired, of suppressing its retinal images, by keeping it always closed when the sound eye is used.

"It will facilitate the matter to confine myself in the present description to the case of a monolateral convergent squint.

"The first day you give the patient a slide with two marks on it, one for each field of the stereoscope: one black, larger mark is presented to the amblyopic; a smaller coloured one to the sound eye. At first the smaller mark is the only one generally seen; but when the sound eye is closed or covered, the larger mark comes into view. If the sound eye is now cautiously opened, the patient may succeed after a few trials to see both marks at once. If this does not soon take place, I give the patient the card with him, and after a little practice at home, he the next day perceives the two marks with the greatest ease.

"If there exist an antipathy to single vision, which does not very often occur, it may be combated by a method which I have described in another place